

PAN AMERICAN fisherman

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PACIFIC OCEANIC FISHERY
INVESTIGATIONS

OCT 29 1953

In This Issue . . .

- ★ Availability of Seafood Products
- ★ San Pedro Fishermen's Fiesta
- ★ Survey of Domestic Tuna Industry

p. 27



35c

\$3 A YEAR

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OCTOBER
1953

Even a Boy can fight Communism with Truth



Kids on Radio Free Europe Send Hope To Pals Behind Iron Curtain

Twelve-year-old Karel Paces, a young Czech found in a German refugee camp, is broadcasting over Radio Free Europe to his Czech friends behind the Iron Curtain.

He is telling them familiar children's stories in their native tongue—stories now denied them by their Communist masters. These stories have a very real meaning to Karel's friends, a meaning ingrained in the folklore of their country.

Karel Paces is giving his friends, the boys and girls of his beloved Czechoslovakia, the truth of their own country and the free world. It is this truth which every American must support now so

that it can be used to fight the deceit, darkness and despair which Communist tyranny is spreading through the satellite countries of Europe.

Day and night, Radio Free Europe is exposing Communist lies and propaganda, and sustaining the hope of oppressed millions that some day they will live in a better world.

At least \$4,000,000 is needed this year to support and expand the operations of Radio Free Europe and Radio Free Asia. In addition, the Crusade for Freedom is seeking the signatures of Americans, on Freedom-Grams. These will be your personal pledges of hope for a free world.

This Crusade cannot succeed without your help. Your contribution is needed *now* to help support Radio Free Europe and Radio Free Asia . . . to help fight red lies with truth and to win the cold war.

Support this truth campaign now and help bring to millions the promise of future freedom.

Send your contribution to
Crusade for Freedom,
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**Help Truth Fight Communism
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Contributed in the public interest by

PAN AMERICAN FISHERMAN

LETTERS TO THE EDITOR

To the Editor:

The editorial contained in the September issue of the "Pan American Fisherman" expresses certain opinions of the policy of Ecuador regarding fishing which I feel it my duty as Ecuadorean Consul in San Diego to clarify:

Traditionally the people and government of Ecuador have always been friends of the United States. It has been the policy of the Ecuadorean Government always to tighten the bonds of friendship with its sister nations of this Continent, and so it has offered the most ample facilities to business men of the United States who have come to Ecuador with a desire to contribute to the development of its natural resources and the growth of its industry.

This policy has prompted Ecuador to grant them fishing concessions, as it favors joint efforts to develop a fishing industry which contributes

towards raising the standard of living of the Ecuadorean people.

Ecuador has tried, and is still trying, to establish an industry of its own for the benefit of its people and is not attempting to prejudice certain American interests, and it has no thought of establishing an "empire" to compete with the food industry of the United States.

Ecuador wishes to maintain the most cordial fishing relations with the United States, and, with the exception of certain incidents occasioned by California fishing boats, these relations shall continue to be cordial.

Ecuador has evidenced its frank desire to cooperate with the California fishing fleet, and has maintained its rich banks of tuna and bait open for constant exploitation by American fishing boats for many years, in the Galapagos Islands. These fishing banks in the Galapagos Islands are

still open without any restriction excepting compliance with our laws and the payment of \$12 per net ton for tuna.

If Ecuador has established fishing restrictions in its territorial waters, it has only been when it was considered necessary to maintain a policy of conservation of the resources existing therein.

The Fishing Relations Conference held in Quito this year shows the spirit of friendly understanding by which our governments are guided in a desire to solve existing problems. The recommendations made by this Conference, composed of representatives of the Quito and Washington governments, merit the most careful study on the part of Ecuador, and the decisions which my country shall make in that respect shall be the result of mature study in the light of its interests and of the desire to continue the cordial relations existing between both countries.

Sincerely,

Consul of Ecuador
G. Ycaza Borja

Editor's Note: The policy of this magazine always is to be fair to all parties concerned.

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EDITORIAL

IMPORTS . . . The Law of Supply and Demand

TO an editor sitting on the sidelines, it appears that the subject of controlling tuna imports by tariffs, quotas, or voluntary agreements still presents a general state of confusion. Delegations from the United States go to Japan; delegates from Japan tour the United States. Nothing much seems to come from all this activity. If anybody is making money out of it besides the airlines that fact does not reach the casual observer.

Two Clear Facts

Two facts do stand out clearly, however, and these are:

1. The Japanese tuna industry during the past two years has built, or has under construction, more than eight million dollars (U.S.) worth of modern, first class tuna vessels about the size of our YP class of tuna clippers. Obviously good money is being made in Japan by large tuna vessels. Otherwise there would not be this boom of building and investment.

2. The California tuna industry has lost 26 clippers at sea since the last new keel was laid more than two years ago. Nobody here is thinking of building new boats. Most of the owners would like to sell their boat interests. Obviously no money is being made in the United States by large tuna vessels. Otherwise somebody would at least start thinking about building a new boat.

One Other Fact

One other statement has such general acceptance that it can be made as a fact. The fleets of American tuna vessels, at their present size, cannot fill the raw material demands of the American consumer market. We have heard no responsible fisherman's or boat owner's organization in America do anything but agree with that fact.

It is equally undeniable that if the public expects to find canned tuna on their grocer's shelves, the raw material has to be got out of the ocean. If we haven't the boats to do the whole job, some tuna has got to be imported.

Bone of Contention

The bone of contention does not really lie in this factor. For a sound economic balance universally, countries must import and export all manner of goods. This point is not actually in question; it is only the extent of imports over a period of time that must be controlled to give reasonable protection to a home industry, whether that "home" is here or abroad.

It thus becomes obvious that our home fishing fleet has open to it but a few courses of action. Here are the three primary ones:

Three Courses Open

1. The vast tuna resources of the Pacific are just as available to Americans as Japanese. Japanese have to go as far from home base to expand tuna production as Californians do. Californians could enlarge

the local fleet and spread out farther into the Pacific for tuna just as easily as the Japanese are doing.

2. The Californians might go out of business entirely and leave the field open to the Japanese. Actually this is what is going on slowly now as boats are sinking and not being replaced. Or . . .

3. We might be able to split the American market with Japan and survive.

No Californian can reasonably be expected to accept happily the second course noted above. It is not hard to justify a statement that this would be strongly contrary to American national interest also.

The first course is closed to the American fishermen and boat owners at present. Nobody can put money into a new tuna boat until the ones now afloat make a profit. They cannot make a profit at the present price of 14c per pound for skipjack and 16c per pound for yellowfin tuna. They could make a profit at 16c per pound for skipjack and 18c per pound for yellowfin.

The Price per Pound

What would this mean in the market? Tuna economics work in such a manner that a rise of two cents per pound of raw material equals two cents per can of tuna on the grocer's shelf. Would a raise of two cents per can stop tuna sales? Who knows? It would at least do them no good.

For each of the five past years the volume of imports of tuna from Japan has risen sharply over the preceding year. The only reason California is still in the production end is that the American tuna market likewise has increased sharply each year. Obviously the product is somewhat underpriced or the market would not jump twelve or thirteen per cent in volume each year.

But if the market growth is slowed down without slowing down the import growth, the market for American boats probably will continue to decrease.

The Final Problem

Here then is the problem simply: You can't increase the American fleet and its production without increasing the money it makes. You can't increase the money it makes without putting some lid on the amount of imports.

Thus it seems as simple as can be that the interests of the whole industry . . . cannery workers, boat owners and fishermen . . . lie in the direction of controlling Japanese imports so the Californian boat owners can get a raise so that the California industry can once more continue its interrupted growth.

In the other direction lies oblivion for California cannery workers as well as the rest of the industry. When the Japanese get to the point where they control the majority of raw material used in canned tuna in the United States, they automatically will inherit control of the American canned tuna market.

ROBERT K. LAWSON

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About This Issue . . .

The old law of supply and demand bobs up in two places this issue—in the Editorial on page 4, and in "Andy" Anderson's article on page 10. Each approach to the matter is from an entirely different angle.

*

The title of Anderson's article is a big mouthful—"Availability of Seafood Products"—but don't let that scare you off. It is filled with sound sense.

*

Third installment of the FWS "Survey of the Domestic Tuna Industry" starts on page 12. If you read this whole series you

will know more about the tuna industry than most people.

*

Fires at sea scare the day-lights out of most fishermen... so see the Clipper CAL story on page 15. This magazine is pledged to help reduce the losses from fires and sinkings.

*

And now to end on a lighter vein, there's "San Pedro's Fishermen's Fiesta" reviewed on pages 16 and 17. From the same event came the front cover illustration—a net full of beauties that made us polish up our old bifocals. Here's mud in your eye!

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Japanese Tuna Mothership Expedition Reports Good Catches

A recent report from the tuna mothership fleet operating off Solomon Islands in the Pacific indicates good catches comparing favorably with those of last year, U. S. Embassy dispatch from Tokyo states. Catch for the first month of operation ending July 10 amounted to over 4.6 million pounds or 37 per cent of the catch target of 1.2 billion pounds by mid-September. The position of the mothership in mid-July was approximately 7°31' South Latitude and 160°03' East Longitude. The fleet is operating with 1 carrier (11,224 gross tons), 30 catcher boats (average 130 gross tons each), and 2 small carriers (average 1,000 gross tons each).

The total tuna caught and processed by the mothership as of mid-July is as follows:

Received:	Volume	
	Number of fish	Pounds
Species		
Yellowfin tuna	34,658	2,541,371
Other tuna	10,397	530,876
Swordfish	7,927	940,828
Shark	7,607	627,536
Other fish	284	7,253
Total	60,873	4,647,864

Processed:		
Yellowfin, tuna, round	25,256	1,761,816
Yellowfin tuna, fillets		495,886
Other tuna, fillets		409,241
Swordfish, fillets		541,875
Shark, fillets		445,141
Other fish, round		7,335
Total		3,661,294



Developing Overseas Fishing Areas

The Japanese fishing industry soon will be engaged in enterprises in Costa Rica, Argentina, and Burma, according to a recent dispatch from William C. Neville, Fishery Attache in Tokyo. Mr. Neville's post was recently abolished by the Department of State. It is understood, however, that he will be on duty until sometime in October.

According to the dispatch, "One Japanese firm has reportedly completed arrangements to engage in shrimp fishing along the Pacific Coast of Central America. Operations will be based at Puntarenas, Costa Rica, and are expected to begin in early October. The Taiyo Fishing Company, one of the largest firms in Japan, has entered into an agreement with the Pacific Refrigeration Company of Costa Rica, which provides for fishing rights over a two-year period and the use of facilities at Puntarenas.

Two Japanese trawlers (averaging 98 gross tons each) sailed from Japan to arrive in Costa Rica about the end of September. Shrimp fishing will be during the seasonal period, October-March, trawling for bottom fish will be carried on after the shrimp season.

The Taiyo Company anticipates an annual catch of at least 250 tons of shrimp. The catch will be exported to the United States through the Pacific Refrigeration Company. This project has been publicized in the Japanese press.

In the prewar, Japanese-owned trawlers operated from bases in Mexico in the Gulf of California and in the Gulf of Mexico. The catch was principally prawns, some of which were frozen and shipped to Japan; some were sold in the U.S. markets. These operations which began in 1935 and extended until 1941 were in part exploratory. Six trawlers were engaged from 1939 to 1941. The records show that a little exploratory fishing was done off Costa Rica in the prewar years—but not from land bases in that country.

Japanese Exports of Canned and Frozen Tuna, January-June 1953

Month	1953		1952	
	United states	All other countries	United States	All other countries
January	398	150	2,831	35
February	2,958	175	1,361	---
March	3,856	---	2,208	---
April	3,167	---	1,100	---
May	2,358	50	1,301	---
June	12,302	---	6,590	300
Total	25,039	375	15,391	335

CANNED TUNA (to the United States only)

Month	1953	1952
	Cases	Cases
January	69,530	65,408
February	142,121	68,148
March	86,223	78,942
April	54,890	66,583
May	69,445	56,215
June	172,764	41,902
Total	594,973	377,198

CANNED TUNA BY CAN AND CASE SIZE (United States only)

Sizes	January-June 1953	January-June 1952
	Cases	Cases
48 3½ oz.	6,190	1,000
48 7 oz.	450,327	286,097
24 13 oz.	36,716	33,238
6 4.4 lb.	101,152	56,863
Total	594,973	377,198

Report from *Washington*

Gleaned from the Nation's Capital by John Harms

EQUALITY FOR FISHERMEN.--Every once in awhile covering Washington for the Pan American Fisherman, we hear fishermen compared with farmers. Both are the main cogs in our food industry . . . both depend upon the uncertainties of nature for their livelihood . . . both need protection from imports that threaten to destroy their domestic markets.

But when you take a closer look, you find that the comparison ends right there. The facts show that fishermen are not on equal footing with farmers. Fish is a major food commodity, but it does not get the consideration in the government which is accorded other major commodities like, for example, corn, wheat, rice and so on.

--o--

THE FACTS.--This year the government will lay out almost \$6 billion to assure farmers a "fair" price for their production. Most of this is in loans to farmers, but much of it is in direct payments.

The government plans to give farmers advice on how and when to market their products. They already are beneficiaries of a vast network of information telling them the latest farming practices. This year the State and Federal governments will spend about \$60 million in agricultural research. Farmers will get paid for conducting "good" conservation practices from a \$250 million federal fund. Then there are lots of other services available to help farmers with their income.

Farmers have little trouble in getting across pleas for import restrictions on commodities that might threaten domestic markets.

On the other hand, the government does not smile as warmly on the fishing industry--although the "fish" crop is every bit as uncertain as farm crops are because of weather and other acts of nature.

While the fishing industry does not want all the help that farmers get, observers here believe it ought to have a sympathetic ear in Congress. Though farmers have little difficulty in getting help, the tuna industry, for example, is being stalled in Congress for a solution of one of its biggest current problems--the threat to domestic markets and to the industry itself from imports.

--o--

TAX RETURNS.--California's Rep. Cecil King is pointing up this type of inequality of fishermen and boat owners in his efforts to have Congress change the time required for making income estimates for fishermen's tax returns.

King says that farmers--unlike other self-employed citizens--are not required to file declarations of estimated tax on March 15 for the current year. He says they are permitted to wait until January 15 of the

next year to file their declaration. And, he goes on, if farmers don't want to file a declaration on January 15, they may file a final return on January 31 instead of making a declaration.

He points out that Congress permitted this tax set-up for farmers because "farmers are susceptible to severe financial uncertainties because of unpredictable crop fluctuations or failures." King points out that fishermen also experience wide variations in income because of crop fluctuations and failures.. The Los Angeles Democrat plans to push his bill to give "equity to fishermen" in the next session of Congress. He says:

"With respect to this question, fishermen stand in the same position as farmers and, for that reason, I believe they should receive the same consideration from Congress."

--O--

HIGHER REFRIGERATION COSTS.--Traffic experts here predict the Interstate Commerce Commission will authorize the railroads to hike charges for icing and refrigeration of fish and other perishables an average of about 15 per cent. Carriers are asking for a boost of 31 per cent.

Users of "protective services" are up in arms and oppose even a study of carrier costs to determine whether the carriers' request is justified. Opponents of an increase protest the expense of such a study is unnecessary since ICC has ruled three times in the last three years against such an increase.

Petitioners against the proposed boosts also say the carriers are claiming in their request that their costs are higher than the revenue derived but present no figures to support the claim.

National Fisheries Institute will oppose the increases for fishing interests. Those who look for an average increase of about 15 per cent base their prediction on the three recent denials by ICC and the fact that the railroads haven't had an increase on such services since 1946.

--O--

FILLETS TARIFF HEARING UP.--Public hearings set for October 20 in the Tariff Commission investigation of groundfish fillets will be held as scheduled. Powerful opposition is already set to oppose any restrictions on the import of fish. The investigation is undertaken chiefly at the request of New England fishermen.

The American Seafood Distributors Association, an importers and distributors organization with more than 120 members, will oppose the fisherman. National Fisheries Institute will decide at its next director's meeting just before the hearing what stand it will take.

Chances of relief for the East Coast fishermen this time are still unpredictable. The New Englanders lost in the previous investigation completed in September 1952 when the Commission found no ground for recommending relief.

--O--

NEW TARIFF OPPOSITION.--The American Seafood Distributors Association,

(Continued on page 25)

International Fishing Boat Congress

Reports from UN's Food and Agriculture Organization, sponsors of the forthcoming International Fishing Boat Congress to be held at the Delano Hotel, Miami Beach, Florida, November 16-20, 1953, indicate larger than anticipated advance registration.

This meeting will be held concurrently with the Gulf and Caribbean Fishing Institute, sponsored annually by the Marine Laboratory, University of Miami. More than 40 Naval architects, fishing-vessel construction experts, and others interested in fishing-vessel design, have indicated their plans to attend the Fishing Boat Congress.

About 30 technical papers covering a wide variety of vessel problems are scheduled for delivery, including three on European trawlers, several on the design and construction of American trawlers, tuna vessels, and small fishing craft.

Problems concerning stability of tuna clippers, the effects of loading on the trim of trawlers, and selection of engines for all types of craft will be covered. Also new deck gear, new trawlers for freezing fish at sea, etc.

For further information write to: Branch of Commercial Fisheries, Fish and Wildlife Service, U. S. Department of the Interior, Washington 25, D. C.

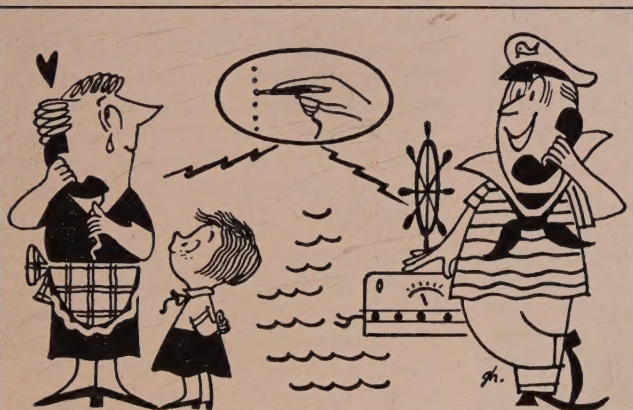
"Equity for Fishermen"

In explanation of his bill HR 6721, Congressman Cecil King of California says: "The purpose of the bill which I have introduced is to place fishermen in the same position as farmers with respect to the filing of their declarations of estimated income tax. For many years the American farmer has enjoyed certain governmental privileges not accorded to other individuals. Farmers are susceptible to serve financial uncertainties because of unpredictable crop fluctuations or failures. It was principally this reason that prompted Congress to legislate certain benefits for farmers with respect to declarations of estimated income tax. Under our present laws farmers, unlike other self-employed citizens, are not required to file declarations of estimated tax on March 15 for the current year, but may wait until January 15 of the next year and file their declaration at that time. If they do not desire to file a declaration on January 15, they may file a final

return on January 31 in lieu of such a declaration.

"Like farmers, fishermen experience wide variations in income because of crop fluctuations and failures. Under such circumstances it makes it virtually impossible in the early part of the year to estimate with any degree of accuracy the income of a fisherman. These circumstances face almost all fishermen in the United States, whether they are on the Pacific, the Gulf, the Atlantic, or the Great Lakes. Almost all of our fishery resources have been the subject of wide fluctuations in abundance and availability. In California, for instance, fishermen harvested 355,000 tons of sardines in 1950, 126,000 tons in 1951, and only 3,600 tons in 1952. This type of fluctuation is present in almost all United States fisheries to a greater or lesser degree. Since the amount of a fisherman's income is directly related to the amount of fish he catches, predictions of income are almost impossible in situations where catches are unpredictable.

"With respect to this question, fishermen stand in the same position as farmers and, for that reason, I believe they should receive the same consideration from the Congress."



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Availability OF SEAFOOD PRODUCTS

By A. W. ANDERSON

The availability of seafood products is determined, in the first instance, by the size and character of the natural resources from which they come. Our domestic catch of fish is produced from fishery resources of which we have relatively little knowledge. We know neither the full extent of our fishing grounds for many species nor the size of the populations upon them. And most estimates of the probable limits of the resources soon have been proved erroneous by the discovery of new fishing areas.

For example the shrimp fishery in the ocean perch fleet fishes far to the has expanded both to deeper home waters and also to more distant grounds off foreign shores. Tuna fishermen now go as far south as Peru and still have before them a large area of untouched grounds along the equator in the Eastern Pacific. In addition, they have a possible bluefin tuna fishery in the North Atlantic, and excellent prospects in the Gulf of Mexico. And I am sure many of you are aware of the rise of the ocean perch fishery in New England. From a modest beginning in 1934 in nearby waters it

reached a dominant position in 1946. Now, to maintain its preeminence, the ocean perch fleet fishes for to the eastward on the edge of the Grand Banks of Newfoundland.

Although there is some knowledge of untouched or more productive grounds, the current catch levels for most species are maintained by utilizing only those resources which are most conveniently exploited and which promise the greatest economic return.

To Increase the Volume

If a greater volume of edible fish were required, the demand could be met in several ways. A larger catch of the more marketable varieties could be secured by expanding the fishing areas, and using improved fishing techniques and handling methods. More Atlantic Coast groundfish, Pacific Coast jack mackerel and anchovies, and Gulf shrimp could be produced by using these means alone or in combination.

Fish now discarded at sea, because of size or for other considerations, could be landed. Most trawling vessels catch substantial quantities of fish which they do not land because no market has been developed for them.

A greater demand would immediately bring greater catches of varieties only partially exploited at present. For example, pollock and whiting production in New England, and some rockfish production on the Pacific Coast do not tax the resources fully as price levels usually drop to a point where production becomes unprofitable.

Finally, there is always the possibility of diverting to direct human use a part of the large catches of menhaden, pilchards, and herring which are used in the manufacture of fish meal and oil. However, since fish meal, in particular, contributes significantly to the increased production of poultry and hogs, the advisability of such diversion would have to be examined carefully.

The availability of fishery products, as now produced for consumption, varies in accordance with the importance of several factors. Probably Mother Nature plays the most significant role. Changes in the weather, the winds, the water temperature, and the currents cause changes in the abundance of fish in the sea, and in their availability to the fishermen. In addition, there are cyclic changes in abundance. For example, there are annual variations in the runs of most Pacific Coast sal-

This is a condensation of a recent address by Mr. Anderson who is Chief, Branch of Commercial Fisheries, U. S. Fish and Wildlife Service, Washington, D. C.

mon. For some other species, notably herring, the cycles may cover many years.

Availability also depends on the enterprise of the 162,000 fishermen who use 95,090 fishing craft to land the catch. The Federal Government does not set nor does it seek specific levels of production except in cases of National emergency. Nor does the Government provide support prices or subsidies. Consequently, the volume of production stays close to the limits or probable consumer demand. When the returns for one variety of fish drops to unprofitable levels most fishermen shift to fishing for other varieties, if that is possible, or cease operations temporarily. Thus, fish which might have been caught remain in the sea. Similarly, if the price for a species is above normal, there is a tendency for more effort to be devoted to catching it.

Status of Imports

Imports of fishery products add greatly to the volume of fishery products processed from the domestic catch. In the case of frozen groundfish fillets, canned tuna, and frozen shrimp, they supply a very large proportion of the domestic market. In fact, imported edible fishery products represent a foreign catch of about one billion pounds, or about one-third of our catch of fish used directly for edible purposes.

The volume of imports affects both domestic prices and supplies. The depressed state of the cod fillet market is a recent example.

It is quite possible that imported fishery products may eventually dominate the market for groundfish and similar fillets. It is less certain that this may happen with regard to canned tuna, but it could occur under certain circumstances.

Domestic Catch

During the last ten years the domestic catch of fish has ranged from 4¼ to about 5 billion pounds. The variation in the volume from one year to the next has not exceeded 10 percent and in 7 of the 10 years was 5 percent or less. Thus, despite the vagaries of nature and changes in demand, the over-all catch does not fluctuate widely.

Based on the figures for recent years, we can forecast that a little over one-third of the catch will be used fresh or frozen; about one-third will be canned; about one-third will be used for byproducts and bait, and about two percent will be prepared as cured fishery products.

The variation from year to year in the poundage used for these purposes is greater than that for the total catch. For example, in the last ten years the volume of fish used fresh or frozen has varied as much as 16 percent from one year to the next. However, the average change has been more like 7 percent. For canned products the variation has been as much as 21 percent, but has averaged only 9 percent. I mention these percentages to demonstrate that, although the catch of individual species may decrease considerably from one year to the next because of natural causes or for economic reasons, the gap is usually filled by increased production of some other species. Thus, there may be a considerable shortage of an individual variety, but there is not apt to be a shortage of fish in general.

Kinds of Fish

The kinds of fish and shellfish are legion. Considering only our own catch you could serve a different kind of fish every other day for a year if you so desired. Our statistical records list over 200 varieties of edible fish taken in commercial quantities. Since it takes only about 25 varieties to make up about 90 percent of the catch by volume, it is obvious that a great many kinds are not widely available. With some variation from year to year the top ten species used for edible purposes usually include California sardines, tuna, salmon, ocean perch, herring, shrimp, crabs, mackerel, and halibut.

The numerous varieties of fish mentioned are landed in substantial volume only in our coastal areas. Catches in the Great Lakes are nominal, and in our rivers they are rela-

tively insignificant. Nevertheless, these catches are often of importance locally.

Landings of fish usually occur at the nearest available point to the fishing grounds which provides the necessary services and facilities for the fleet and a market for the catch. There are fishing ports at the farthestmost points of the country. Eastport, Maine, on the Canadian border, cans a large share of our Maine sardines. Key West, Florida, is an important shrimp port, as is Brownsville, Texas, on the Mexican border. San Diego, California, on the other end of the Mexican border, is a large producer of canned tuna. And Neah Bay, at the northwest tip of Washington, is noted for its salmon. In between these are scores of ports, some large, some small.

Processing Methods

Preserving processes, such as freezing, canning, and curing, are carried out in most fishing ports. These methods, together with improved packaging techniques and the use of refrigerated transportation facilities, make it possible to place a wide variety of fishery products in the hands of consumers anywhere in the country at a reasonable cost.

The most recent development is the marketing of frozen cooked fishery products. Preparing such a product for a meal requires only a short period of heating. It may be destined to become the most important frozen fishery product.

Canned fish are so familiar and so widely used that little needs to be said about them. The more important canned fish, such as tuna, salmon, sardines, mackerel, and shrimp provide a variety of products which meet almost every requirement.

Fish canners have not developed a ready-to-use product of any significance—which requires only heating before serving—except in the field of soups and chowders. Interest in this type of product is growing as is evidenced by two new canned tuna and noodle combinations. It is quite probable that the prospect of a new marketing outlet and competition from other food products of this type may result in additional ready-to-serve canned fish products.

At one time the seasons during which fish were produced were of importance with respect to their availability on the market. Now freezing, canning, and curing make it possible to obtain almost any var-

(Continued on page 23)



Survey of the Domestic Tuna Industry

PART III

Excerpts from a comprehensive study of all phases of the industry, recently released by the U. S. Department of the Interior, Fish and Wildlife Service.

THE tunas are one of the world's leading fishery resources. Five species are taken generally by United States fishermen. These are albacore, bluefin, little, skipjack, and yellowfin tuna. In addition, bonito and yellowtail are packed tuna-style and known as "tunalike fishes." However, they cannot be labeled "tuna."

The United States catch, which has averaged about 350 million pounds annually in recent years, is one of the most valuable fishery products taken by United States fishermen. Tuna canning began in the United States in 1903 when the canning of albacore was undertaken in Southern California. For a number of years albacore was the only species canned. However, as the demand increased and the supply of albacore was found to be limited, the packing of other species was undertaken.

As the market for canned tuna continued to expand, the number and size of the fishing craft increased, and it became necessary to fish in waters off Central and South America where large concentrations of skipjack and yellowfin were available throughout the year. By 1927, the principal source of fish for California canneries was the waters south of the Mexican border.

From West to East

In 1937, considerable quantities of albacore were found off Oregon and Washington, and tuna canneries were established in those states. Locally-caught albacore, as well as receipts of these fish from California and imports of various species of tuna from Latin America and Japan, are now canned in Oregon and Washington.

The canning of tuna on the east coast of the United States was likewise begun in 1937, and the fish are now packed in several Atlantic Coast states. Locally-caught bluefin and little tuna, fish from the Pacific coast and imports from Canada, Japan and

Peru provide the raw materials for the east coast canneries.

Within a few years after tuna were first canned in California, canneries were constructed in the Hawaiian Islands. The two canneries now operated in the Islands pack both locally-caught and imported tuna.

As the market for canned tuna increased, a number of countries began exporting fresh, frozen, and canned tuna to the United States. Imports of fresh and frozen tuna (principally frozen) which are received free of duty reached a pre-World War II high of 11,046,000 pounds in 1937, and then increased spectacularly following the war to 69,003,000 pounds in 1952.

Imports from Japan

Japan began exporting canned tuna to the United States in 1931. By 1933, imports of tuna canned in oil, nearly all from Japan, were equal to 40.5% of the domestic pack. Since these Japanese imports were found to be produced at lower cost than similar United States products, the duty was increased from 30% to 45% ad valorem. This effectively reduced the imports.

In 1943, as a result of a trade agreement with Mexico, the duty on tuna canned in oil was reduced to 22½% ad valorem. Following World War II, imports increased sharply, and, in 1950, a total of 36,409,547 pounds of tuna canned in oil were received, principally from Japan and Peru.

The Mexican Trade Agreement with the United States was abrogated as of January 1, 1951, which resulted in the duty returning to 45% ad valorem. The result of this action was to reduce imports of tuna canned in oil to only 3,618,565 pounds in 1951, and 4,288,447 pounds in 1952.

Since tuna canned in brine, rather than in oil, is dutiable at 12½% ad valorem, Japanese tuna canners be-

gan canning tuna in brine for export to the United States. In 1951, imports of this pack amounted to about 9,351,758 pounds, and in 1952, to 19,032,500 pounds.

The Gear Used

The major portion of the United States catch of tuna and tunalike fishes is made with hook and line and purse seines. Smaller catches are taken by pound nets, haul seines, and harpoons, and occasionally by gill nets and otter trawls.

Three types of fishing craft account for about 99% of the United States catch of tuna. These are small trollers, or jig boats, which fish for albacore; the large tuna clippers, which account for the bulk of the yellowfin and skipjack catch; and the purse seiners, which engage principally in the taking of bluefin, bonito and yellowtail.

Canning Methods

While many mechanical advances have been made in canning tuna since the inception of the domestic industry, the basic processes followed have shown little change. The fish are pre-cooked and most of the pack is canned in No. ½ cans with a small quantity of salt and vegetable oil. In recent years, there has been a strong trend toward packing chunks and flakes rather than solid meat.

In addition to the production of canned tuna, considerable quantities of tuna by-products, consisting of meal, and body and liver oils, and solubles are manufactured from tuna waste. The total value of tuna by-products in 1952 was about \$5,000,000. In the same year, the value of the canned pack was \$113,000,833.

Species of Tuna

The tunas are widely distributed in temperate, semi-tropical and tropical waters. Although they have been fished for many centuries off Europe, northern Africa, and Asia, and more recently in the Western Hemisphere

and the mid-Pacific, comparatively little is known concerning them.

Preliminary research indicates that there may be large populations of tuna in the mid-Pacific and in other areas that are not now fished, and it is possible that they are one of the world's great food reserves.

Five species of tuna, which may be canned and sold as tuna, are landed in the United States. On the Pacific coast the catch includes albacore (*Germo alalunga*), bluefin (*Thunnus thynnus*), skipjack (*Katsuwonus pelamis*) and yellowfin (*Neothunnus macropterus*), while bluefin and little tuna (*Euthynnus alletteratus*) are taken on the Atlantic coast.

Blackfin tuna (*Parathunnus atlanticus*) have been caught in the Gulf of Mexico but not in commercial quantities by United States fishermen.

The big-eyed tuna (*Parathunnus sibi*) is taken in Hawaii and it is reported that occasionally catches of this species are taken by California fishermen. However, since the fish are similar in appearance to yellowfin, the catch is included with that

of the latter species. Other species of tuna occur far from areas presently fished by United States fishermen.

Bonito [*Sarda chiliensis* (Pacific) —*Sarda sarda* (Atlantic)] which, like tuna, are members of the mackerel family, and the yellowtail (*Seriola dorsalis*), a member of the jack family, are canned tuna-style. The pack is considered a *tunalike* rather than a *tuna* product. However, Federal regulations require that the cans be labeled "bonito" and "yellowtail," respectively, rather than tuna.

Additional background information about the five species of tuna and the two *tunalike* species with which the domestic tuna industry is directly concerned follows:

Albacore (*Germo alalunga*)

Albacore, also called longfin tuna, has lighter meat than the other species, and is the only one which, when canned, the Food and Drug Administration permits to be labeled "white-meat" tuna.

Albacore are a dark steel blue on the upper portions of the body, shading into dull silver below, and may be distinguished from other species of tuna by the great length of the pectoral fins, which extend beyond

the front of the anal fin.

Albacore occur from Alaska to central Lower California, and through the temperate Pacific to Hawaii and Japan. While individual fish may reach a maximum weight of 80 pounds, those taken commercially usually weigh less than 40 pounds and the average ranges from 12 to 25 pounds.

Regulations of the California Department of Fish and Game permit the taking of albacore at anytime. However, none weighing less than 9 pounds may be sold in the State. There are no size or seasonal restrictions on the taking of albacore in Oregon or Washington.

Albacore usually appear on the Pacific coast in the spring or early summer, and disappear in the late fall or winter. Most of the catch is taken from July to October, inclusive. Albacore are the only tuna taken off each of the Pacific Coast States. They have also been taken off British Columbia and landings have been made in Alaska. In recent years from a third to a half of the United States catch has been taken off Mexico.

(Continued on page 20)

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FIRE

Aboard the Tuna Clipper CAL

A FLASH fire aboard the \$120,000 tuna clipper CAL, 60 miles off the coast of San Benito Island and some 350 miles south of San Diego, in the middle of the night of September 21, caused an estimated \$10,000 damage to the vessel.

The flames in the engine room were first sighted by Gabriel Nava, an oiler, who was on watch at the time. Nava reported he was oiling the No. 6 cylinder on the main engine when he saw the blaze behind the switchboard panel. Nava promptly turned a CO² extinguisher on the flame and when this had little effect, he called the chief engineer, Fernando Orozco.

Despite additional efforts to subdue the flames, the fire spread rapidly through the freshly painted engine room overhead, and skipper Richard Marques was summoned. Marques quickly organized the crew into fire-fighting units, and as a precautionary measure had the speed boat and skiffs readied for launching. These boats, however, were never put into the water.

The fire started from a short-circuit in a bait pump starter switch against the port side of the hull and behind the switchboard. From this point it moved rapidly upward and across the forward bulkhead of the engine room. Four men remained in the engine room to combat the flames . . . in addition to the skipper, engineer and oiler already mentioned there was George E. Gerarden, another oiler. All four men from San Diego.

Three CO² 15-pound extinguishers were exhausted and several smaller Pyrene hand-extinguishers were used with comparatively little result on the flames. A draft from the shaft alley and opening above the engine room apparently fanned the fire with an action similar to a fireplace draft. The skipper was reluctant to release the main CO² system, because this probably would stop the auxiliary engines and thus cut off any possible source of current to operate pumps, lighting power and refrigeration.

(Editor's Note:—Fire aboard ship at sea is an experience of terrific impact upon human beings—hence the following account of crew members aboard the tuna clipper CAL makes interesting reading. One of our editorial aims is "greater safety at sea.")



This measure, however, subsequently became necessary as the flames gained headway. All ports and bulkhead doors were closed and the engine room was sealed off to permit complete operation and effectiveness of the main CO² system, which was then turned on. After a half hour or so, it was noted by the reflections of light on the water through the engine port glasses that the flames were diminishing.

It was necessary to wait longer with the engine room doors partially opened to permit escape of the smoke, heat and fumes from the CO² system and the fire, before anyone could enter the engine room. When this was done by the men wearing ammonia masks, it was noted that some glowing embers remained in the heavy timbers. So the skipper and chief engineer organized a bucket-brigade and crew members passed pails of water to the engine room. A portion of the decking over the switchboard was chopped open to get the water to the source of the flames and to remove smoldering timber.

When the fire was under control, it was thought the vessel would have to be towed to port, since the complete electrical system was burned out. Investigation proved, however, one auxiliary engine would operate

and that the main engine would function. The brushes were removed from the generator on the auxiliary to eliminate generating of power, and the engine was then used for the purpose of pumping fuel to the day-tank for operation of the main engine.

The ship was put under way to San Diego. With a two-day run ahead, there was some doubt about running without lights of any kind. Fortunately, both nights at sea were bright moonlight, and although four vessels were sighted during the time no mishaps occurred.

Round-the-clock watches were maintained in the engine room, and it was necessary for the crew to operate with flashlights. The precaution proved unnecessary, but undoubtedly contributed much comfort to the crew, which included, Nicolas R. Garcia, of Mazatlan, Mexico; Robert Gonzales, San Diego; George L. Holden, National City; Victor R. Meza, Los Angeles; Roy L. Morgan, Puyallup, Washington; Ramon Munoz, San Ysidro; and Alvaro Ramirez, Guyamas, Mexico, in addition to those mentioned previously.

Managing owner of the CAL was reported as George Campbell, of Campbell Machine Company, San Diego. The CAL fishes for the Van Camp Sea Food Company. The vessel had 40 tons of fish aboard at the time of the mishap, and the entire cargo was saved.

Perhaps the most significant feature of this incident was the splendid coordination and cooperation of the personnel aboard the vessel. General opinion among owners and operators of tuna clippers is that the entire crew of the CAL should be highly commended for the considerable saving effected by their wholehearted efforts in bringing the vessel in, though the distribution of profits from the relatively small pay-load amounted to an insignificant figure individually.

Publicizing this event is in line with the policy of this magazine in furthering a program of "safety-at-sea." *



An exhibit of marine art was one of the special features which always serve as a sideshow for the Fishermen's Fiesta. Here John Real, boat parade chairman, and Artist Vara Grube are looking over some of the entries which captured the attention of many art lovers.

San Pedro Fishermen's Fiesta

LAVISHLY decorated boats streaming out of Los Angeles Harbor in a 10-mile-long parade of majestic beauty climaxed the seventh annual Fishermen's Fiesta on Sunday September 20.

According to Fiesta Chairman Louis Kanaster, more than 6,000 San Pedro fishermen helped to make this the biggest port celebration in the history of the spectacular event which each year points with pride to the fact the harbor is the world's largest commercial fishing port.

A complete schedule of events for both September 19 and 20 was drawn up by the sponsoring San Pedro Chamber of Commerce for the two-day fete. With all events open to the public free, a street dance launched festivities in a big way on Fishermen's Dock.

Sunday's activities started at 11:00 a.m. with Solemn High Mass of

Thanksgiving at Mary Star of the Sea Church in San Pedro, where fishermen have worshipped for 64 years. The blessing of the fishing fleet by James Francis Cardinal McIntyre, followed at 12:30 p.m. at Fishermen's Dock, with the boat parade immediately afterwards at 1:15 p.m.

Competing for \$5,000 in cash prizes, approximately 50 purse seiners, decked out in thousands of flags, pennants and flowers to represent the fiesta theme, "Beloved Stories," passed in review before more than 100,000 spectators who lined the dock and waterfront.

While the boats were at sea, the people who remained behind were entertained by native dancing groups in costume, musical selections by the Loyola University Band, a Japanese judo exhibition, free movies, boat rides, fishermen's skill contests and carnival attractions.

Again this year the "gay way" booths of an international settlement served the delicacies of foreign lands as well as American favorites.

The Navy cooperated in the fete by hosting open house at the Naval Supply Depot adjacent to the fiesta grounds and aboard the cruiser Manchester.

\$5,000 in Prizes

Five thousand dollars in cash prizes plus special trophies were awarded to winners in the boat parade, according to John Real, boat parade chairman and general manager of the Fishermen's Cooperative Association.

Three divisions were set up—sponsored boats, Class I (small boats) and Class II (large boats). In the sponsored boat division the top three winners received trophies only.

In the small and large boat classi-

fications, there were first, second and third prizes of \$1000, \$500 and \$275 respectively, with \$200 each going to the next three boats.

Boats were judged by Los Angeles commercial photographers and cameramen from major studios.

The Prize Winners

SPONSORED DIVISION (trophies only):

Nancy Rose—1st prize—Hansel and Gretel theme—sponsored by Van Camp Seafood Co.

Clermont—2nd prize—The Tin Can Man from Wizard of Oz—sponsored by American Can Co.

Discovery—3rd prize—Daniel in the Lions Den—sponsored by the Lions Club of San Pedro

NON SPONSORED DIVISION:

Santa Maria—\$1250 cash plus merchandise orders for "Cinderella" theme.

Santa Teresa—\$750 cash for "Arabian Nights."

St. Rita—\$500 cash for "Black Sambo."

Dorann—\$400 cash for "Raggedy Ann."

St. George—\$300 cash for "The Xmas Story."

Nancy Hanks—\$300 cash for "Treasure Island."

Gigi—\$300 cash for "Legend of the Swallows."

Riding atop the flagship Coral Sea were Skipperette Sonja Mariani and her princesses, Jean Mariani and Pauline Marinkovich.

The fiesta each year salutes the intrepid "harvesters of the deep" whose annual catch of one billion pounds worth \$50 million has won world supremacy for Los Angeles Harbor. *

The Vanishing Sardine

The California Fish and Game Commission has officially acknowledged that there are virtually no sardines left off California's coast.

The acknowledgement came at a meeting of the Commission at which the fish and game body refused to renew any sardine reduction permits.

Commission President William J. Silva pointed out that this was merely acceptance of the fact that California's sardine catch, which once reached over a half a million tons a year, has dwindled to practically nothing.

The Commission had been powerless to stop this depletion, Silva said. Armed with regulatory power over the reduction plants only, it has had no control at all over the canneries, which take by far the greatest num-

ber of these once plentiful California fish.

The sardines catch for 1950-51, the last good year, was 355,000 tons, of which only 36,000 tons was used by the reductionists, Department of Fish and Game records show. In 1951-52 the catch fell to 136,000 tons, and only 1,000 tons of this was taken for reduction. In the 1952-53 season, a mere 3,600 tons was taken—hardly a single night's haul in the days when California's sardines were plentiful, it was pointed out. Only 11 tons of these were used by the commission-regulated reductionists.

The reductionists can re-apply for permits at any time, and the Commission must act on such applications within 30 days, Silva stated. Canners can take unlimited quantities of the fish for canning, without permit.

Salton Sea

The taking of shellfish in the Salton Sea has been temporarily prohibited under a new ruling passed by the California Fish and Game Commission.

The closure was needed to protect Department of Fish and Game experimental plantings of clams and oysters in Imperial County's huge salt-water lake. The ban will be lifted as soon as the shellfish have solidly established themselves, the Commission emphasized.

The clams and oysters have been planted as part of a Department program to develop the Salton Sea as a sportfishing area. Aside from their importance to clamdiggers and oyster-seekers, the shellfish will also serve as food for the gamefish the Department is trying to introduce.

Already one small species of croaker, a popular Southern California ocean fish, is well on the way toward establishing itself, the Commission was told.



Aerial view of decorated purse seiners lined up before start of boat parade.

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SAN DIEGO CALIFORNIA

3 IMPORTANT Features

In Our
DECEMBER 1953
Issue

Commemorating Three Big Events . . .

- 1 The 50th Anniversary—the Golden Jubilee—of tuna canning and the establishment of tuna as an important food industry on the West Coast.
- 2 The year 1953 marks the canning of the 100 millionth case of tuna in California, and each of the 48 state governors will be sent a case of canned tuna to publicize the event on a nation-wide basis.
- 3 National Tuna Week—an annual promotion that arouses interest all along the line from the tuna fleets, through the processors and handlers, to the consuming public.



ADVERTISERS: Tie into this Year-End Special with extra space, as this issue will have extra interest, longer life, and increased circulation. Send your space reservation now!

Pan American Fisherman

"Business Magazine of the West Coast Fisheries"

ORANGE



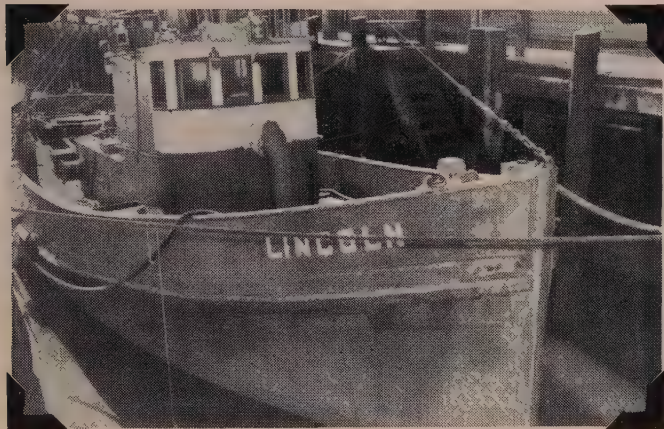
CALIFORNIA

STANDARD ENGINEER'S REPORT

DATA	
LUBRICANT	RPM Gear Lubricant
UNIT	Fishing Boat-M.V. Lincoln
PART	Caterpillar D17000 Diesel engine
CONDITIONS	Reverse gear-self-lubricated
FIRM	Fishing off California coast
	Consolidated Fisheries, Inc., San Francisco, Calif.

No transmission gear trouble in 8 years of fishing!

RPM GEAR LUBRICANT in the reverse gear of Consolidated Fisheries' M. V. Lincoln, shown below, prevented gear trouble since the gears were installed 8 years ago. Inspected at the end of that time, they showed very little wear in spite of tough service bucking tides and foul weather off the California coast. Gears were worked hard by the boat's Caterpillar D17000 diesel, were subjected to shocks and heavy intermittent loads when propeller came out of water during heavy seas. Tony Gomez, Engineer, says, "I've used RPM Gear Lubricant in this boat and others for 15 years and never lost a gear. It holds down wear, protects against shock even under heavy loads and constantly changing speeds."

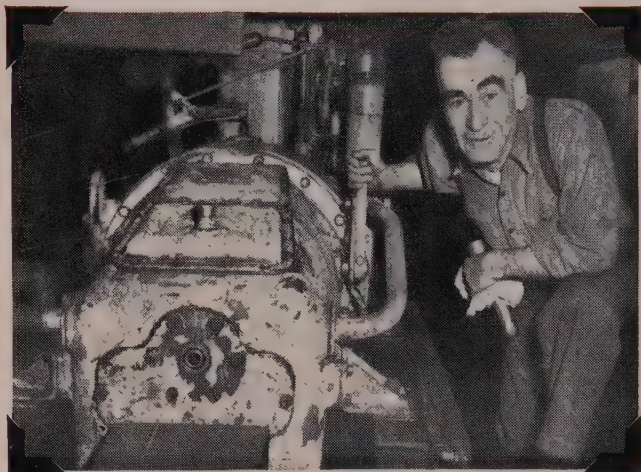


THE M.V. LINCOLN, 59 feet long and 16-foot beam, is one of a fleet of Consolidated Fisheries' boats that fish some 600 miles of coastal waters. RPM Gear Lubricant is used in all their gears.

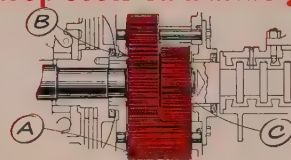
REMARKS: In transmissions, net-hoist gears and other gear trains, RPM Gear Lubricant provides a tough lubricating film because of its very high oiliness qualities and stability. Recommended for all types of conventional gears, and also for bronze worm gears. (For hypoids of all kinds, RPM Multi-Service Gear Lubricant is recommended.)



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How RPM Gear Lubricant reduces upkeep costs on marine gears



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STANDARD TECHNICAL SERVICE checked this product performance. For expert help on lubrication or fuel problems, call your Standard Fuel and Lubricant Engineer or Representative; or write Standard Oil Company of California, 225 Bush St., San Francisco.

STANDARD OIL COMPANY OF CALIFORNIA

Survey of Domestic Tuna Industry

(Continued from page 13)

In 1952 the domestic catch of albacore sold in the Pacific coast area for \$350 per ton during most of the season, advancing to \$425 per ton late in the year.

Bluefin (*Thunnus thynnus*)

Bluefin occur in both the Pacific and Atlantic Oceans. On the Pacific coast they are found from Point Conception, California, south to Peru, and westward to Hawaii, Japan, and Australia.

Pacific bluefin attain a weight of over 250 pounds. The minimum legal size limit for the commercial catch in California is 7½ pounds. The average size caught ranges from 20 to 40 pounds. In addition to its importance commercially, bluefin are a famous game fish in both the Atlantic and Pacific Oceans.

In the western Atlantic, they occur in the Caribbean and from off the Chesapeake Bay States to Newfoundland. They are also found in the Mediterranean and off the Atlantic coast of Europe, where large catches are made by French, Portuguese, Italian, and recently by Norwegian fishermen. Atlantic bluefin reach a weight of 1,500 pounds. Fish of 400 pounds are common on both sides of the Atlantic.

On the Pacific coast where most of the domestic catch of bluefin is made, they are caught principally between May and August. Only occasional catches are made during the winter months. They are taken off the southern California coast and south to below the tip of Lower California. On the Atlantic coast, bluefin are taken during the summer and fall from June to October.

On the Pacific coast bluefin are taken almost exclusively with purse seines. The Atlantic coast catch is taken with a variety of gear principally lines, harpoons, pound nets, and floating traps. Early in 1953 a price of \$310 per ton was established for Pacific coast bluefin. The 1952 Atlantic coast catch sold to canners was valued at about 12c per pound.

Skipjack (*Katsuwonus pelamis*)

While skipjack are the smallest of the commercial tunas, they are probably the most abundant. Known also as "striped tuna," they may be distinguished by four or five dark stripes which extend horizontally along the lower side of the body.

Skipjack in the commercial catch usually weigh from 4 to 20 pounds. California regulations prohibit the landing of skipjack weighing less than 4 pounds. Skipjack occur in the eastern Pacific from Vancouver Island to the coast of South America, but are rare north of Point Conception. They are also found in Hawaii and Japan where they are the most important tuna taken. They also occur in the Atlantic Ocean and the Mediterranean Sea.

Since skipjack and yellowfin are taken in largely the same areas by the same boats and type of gear, there is, to a large extent, a single fishery for the two species. However, there is one difference between them. The catch of yellowfin is confined to the coastal shelf and outlying banks and islands, while skipjack may be taken at considerable distances from any shore or bank.

Skipjack are taken principally with hook and line using live bait, purse seines and trolling gear. Early in 1953 a price of \$280 per ton was established in the Pacific Coast Area for skipjack.

Yellowfin (*Neothunnus macropterus*)

Yellowfin is the principal tuna taken by California fishermen. They occur in the eastern Pacific from Point Conception south to Chile, and also in Hawaii and the central Pacific to Japan. They also are found in the Atlantic, but apparently less abundantly than in the Pacific.

Yellowfin may be distinguished by the rather long pectoral fin reaching, or almost reaching, the front of the anal fin, but not past it, as in albacore. The name is derived from a golden yellow iridescent band found along the side of newly-caught fish.

Yellowfin may reach weights of from 300 to 400 pounds, but fish of this size are rare. California limits the sale of yellowfin in the commercial catch to a minimum of 7½ pounds. The average size landed ranges from 30 to 40 pounds.

The northern limit of yellowfin is off southern California, where the fish are normally taken in August and September. To the south the season lengthens and in semi-tropical and tropical waters, they can be taken throughout the year. Yellowfin are taken principally with hook and line using live bait, purse seines and

trolling gear. Early in 1953 a price of \$320 per ton was established in the Pacific Coast area for these fish.

Bonito (*Sarda hiliensus* (Pacific)—*Sarda sarda* Atlantic))

The bonitos are related to both the mackerels and the tunas. In California where the major portion of the domestic catch is made, bonito are often taken by tuna fishermen and canned, tuna-style. However, Federal regulations prohibit labeling the pack "tuna." Instead, the labels must bear the designation "bonito."

The flesh of bonito is somewhat darker and more strongly flavored than that of albacore, bluefin, skipjack, or yellowfin. Because of this, bonito are considered less desirable and bring a lower price. Bonito are small, ranging from 6 to 8 pounds each. They are coastal fish, occurring in schools at varying distances from the coast in temperate waters.

In California bonito are found principally off the coast of southern California and the northern half of Lower California. Bonito are taken throughout the year principally by trolling, live-bait gear and with purse seines. Early in 1953 a price of \$195 per ton was established in the Pacific Coast area for these fish.

Yellowtail (*Seriola dorsalis*)

The Pacific yellowtail is considered a tunalike fish, and, like bonito, the canned pack is included in statistics showing the production of "tuna and tunalike fishes." However, yellowtail are not tuna, but members of the jack family (*Carangidae*), which includes the jack mackerel, the scad, and many other tropical species. They cannot be labeled "tuna" but must be designated "yellowtail."

Their range is from Central California, south along the Mexican coast into the Gulf of California. The commercial catch is made from Point Conception south to the tip of Lower California. While the largest catches are made between June and September, yellowtail can be taken during the entire year, off Mexico.

Yellowtail are an important sport fish in southern California and most of the catch north of the Mexican border is made by sportsmen. In recent years, only about 1% of the commercial catch has been taken north of the Mexican border. Yellowtail are taken principally with hook and line generally with live bait and with purse seines. Early in 1953 a price of \$185 per ton was established

in the Pacific Coast area for yellow-tail.

Little Tuna (*Euthynnus alletteratus*)

Little tuna are found along the Atlantic and Gulf coasts of the United States and in the Caribbean area. They are closely related to skipjack, and are one of the species properly classed as tuna. Little tuna are pelagic fish of the warm seas, averaging about 10 pounds in weight, but may reach 20 pounds. They are bluish or greenish on the upper portions of the body, shading to a light, silvery color below.

In recent years, the major portion of the commercial catch has been taken in New York, New Jersey, Virginia and North Carolina. Until a few years ago, little tuna were marketed only as fresh fish. There was little demand for them and the catch was of relatively minor importance. In 1946, an east coast packer began canning little tuna and marketing them as tuna. Although the catch of little tuna has not exceeded 1 million pounds in any year, there are indications that considerable quantities occur in Atlantic coast and Gulf waters and it is probable that the catch will increase considerably as

more is learned of their habits and additional tuna-canning operations become established in the East Coast and Gulf States. The major portion of the catch of little tuna is taken with pound nets and haul seines. The fish usually sell at from 3c to 4c per pound. *

Korean Rehabilitation

A review of the Foreign Operations Administration's proposed program for the rehabilitation of Korea was conducted to ascertain just what part, if any, canned fish or the fishing industry generally would play in the program.

It is deemed unlikely that FOA will authorize any of the \$200,000 appropriation for the procurement of canned fish. In general the rehabilitation of the Korean fisheries will not be handled by FOA, but by UNKRA (United Nations Korean Rehabilitation Administration), an independent body over which the United States has no control.

It was also brought out that the rebuilding of the Korean fishing industry has been actively going forward for the past two years and was

in pretty good position to supply all of the needs of the population for fishery proteins. When asked why, if this is so, UNKRA has asked for bids on the supplying of 29 fishing vessels, either new or used, the answer was that in all probability these additional vessels would catch fish for export to Japan.

The ultimate result of this, of course, would be to permit Japan to withhold from its domestic market more fish to ship to the United States.

Tuna Council

The tuna industry recently formed a group known as the "Tuna Council of the Americas." This group is composed of representatives of the canners, the American Tunaboat Association of San Diego, and the Fishermen's Cooperative Association of San Pedro.

It is the purpose of this group to henceforth conduct all matters affecting our fishery relations with Latin American nations as a group, rather than as individuals. While this may accomplish no miracles, it should assist materially in our relations with Latin America.

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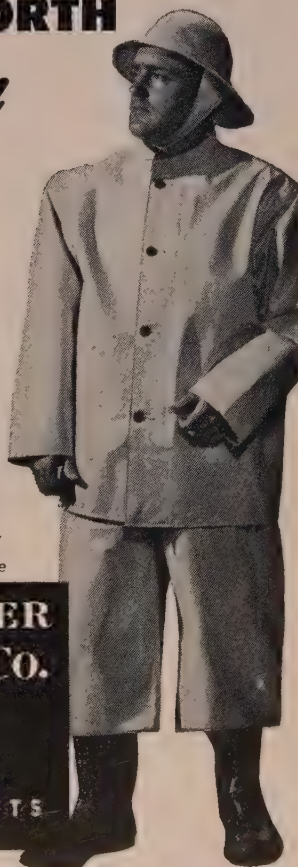
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Annual Summary of Canned Fish and Byproducts ... In 1952

The annual summary issued by the FWS branch of commercial fisheries presents data on the U. S., Alaska, and Hawaii 1952 pack of canned fish and shellfish by commodities and by states. The number of plants canning or producing products and byproducts is also given by area and by state, and historical statistics are included for certain major packs by species.

The pack of canned fishery products in the United States, Alaska, and Hawaii in 1952 amounted to 815,212,863 pounds, valued at \$305,829,198 to the packers. This was an increase of 2% in volume and 2% in value, compared with the 1951 production. These increases resulted principally from larger packs of tuna and Maine sardines. Canned fishery products were packed in 445 plants in 25 states and Alaska and Hawaii during 1952.

California and Hawaii led in the production of canned fishery products with a pack of 319,350,425 pounds, valued at \$124,582,452. Alaska was second with 172,409,845 pounds, valued at \$77,586,903.

The pack of tuna and tuna-like fishes, which amounted to 9,120,889 cases (179,416,944 pounds), valued at \$113,034,510 to the canners, was 884,164 cases and nearly \$14,000,000 more than the 1951 production. The tuna pack includes the production in Hawaii for 1952. This has not been shown in previous years.

The 1952 pack of canned salmon amounted to 4,464,347 standard cases (214,288,656 pounds), valued at \$98,263,789 to the canners—a decrease of 4% in volume and 10% in value from 1951.

The 1952 pack of California sardines (pilchards) amounted to only 106,746 standard cases (4,803,570 pounds), valued at \$918,072—a decrease of 96% in volume and 95% in value from 1951.

The pack of Maine sardines amounted to 3,530,876 cases (71,676,783 pounds), valued at \$21,502,970 to the packers—an increase of 111% in volume and 47% in value from the previous year.

The 1952 production of fishery byproducts in the United States and

Alaska was valued at \$67,991,631—2% less than in the previous year. The principal byproducts were marine-animal oils, 16,094,409 gallons (valued at \$9,391,368); marine-animal scrap and meal, 221,402 tons (valued at \$27,161,654); marine pearl-shell, oyster shell, and freshwater shell products valued at \$14,702,673; and fish solubles and homogenized condensed fish valued at \$5,979,865. Byproducts were produced in 255 plants in 25 states and Alaska during 1952.

Copies of this 20-page bulletin, C.F.S. No. 882, are available free upon request from the Division of Information, U. S. Fish and Wildlife Service, Washington 25, D. C.

Halibut Fishery Regulations

The International Fisheries Commission has just announced that the 1953 regulations for the Pacific halibut fishery have been approved by the President of the United States and the Governor General of Canada and are now effective. These regulations apply to the catching and landing of halibut on the coasts of the

United States, Canada and Alaska.

The Commission was established by treaty between the United States and Canada to rebuild the stocks of halibut on the banks of the North Pacific. Under regulations by the Commission, the stocks have been improved and provide greatly increased annual catches. The work of the Commission is an outstanding demonstration of what can be accomplished by practical international cooperation and sound fisheries management.

The Commission consists of four members, two from each country: George R. Clark, of the Canadian Department of Fisheries, Ottawa, Ontario, and George W. Nickerson of Prince Rupert, B. C., for Canada; and Seton H. Thompson of Washington, D. C., and Edward W. Allen, of Seattle, Washington, for the United States.

The 1953 regulations are almost identical to those of 1952 except as to periods of fishing.

The coast is again divided into eight regulatory areas, with different catch limits and appropriate seasons for each area.

The winter closed season, the closure of the Masset and Timbered Islet nursery areas throughout the entire year, and the 26-inch minimum size limit upon the halibut that are landed, are continued.

Exports of Frozen Tuna from Japan, 1948-52

Year	Quantity Short tons	Value F.O.B. Japan U.S. \$	Avg. Price per Short Ton U.S. \$
ALBACORE:			
1952.....	22,711	6,924,047	305
1951.....	16,068	4,773,656	297
1950.....	7,331	2,346,190	323
1949.....	1,306	412,689	317
1948.....	1,142	528,990	463
SKIPJACK:			
1952.....	702	147,698	210
1951.....	1,067	188,505	177
1950.....	1,721	354,130	200
1949.....	80	16,859	210
1948.....	43	11,180	260
YELLOWFIN:			
1952.....	3,492	778,504	223
1951.....	1,251	298,646	238
1950.....	1,225	299,163	244
1949.....			
1948.....			
TOTAL:			
1952.....	26,905	7,850,249	292
1951.....	18,386	5,260,807	286
1950.....	10,227	2,999,483	293
1949.....	1,386	429,548	310
1948.....	1,185	540,170	456

Fishery Statistics

OF THE UNITED STATES 1953

Results of the first complete statistical survey made of the United States and Alaska fishery industry since 1931 have been released by the Fish and Wildlife Service in a 492-page publication, *Fishery Statistics of the United States 1950*, Secretary of the Interior Douglas McKay has announced.

Previous complete surveys of the United States fisheries were made only in 1908 and 1931. In recent years canvasses of the fisheries of most sections of the country have been made annually. However, no data on the fisheries of the Mississippi River area have been assembled since 1931, and since 1940 only partial surveys have been made of the fisheries of the Great Lakes, South Atlantic, and Gulf States.

This sourcebook is the latest in a series of annual statistical reports which contain data on the volume of the catch of fishery products and their value, employment in the fisheries, quantity of gear operated, and the number of fishing craft employed in the capture of fishery products. Information on the volume and value of the production of manufactured fishery products and byproducts are also shown.

For the first time since 1945 data on the catch and operating units by counties are shown for the entire Atlantic and Gulf coastal areas, except Maryland. Where available, summary information from 1880—when the first comprehensive statistical survey of the fisheries and fishery industries of the United States was made—to date is included.

Outstanding developments during 1950 were the record landing of tuna and tunalike fishes; the continued high production of manhaden; and the expansion of the shrimp fishery in the Gulf area.

A total of 161,463 fishermen, 11,496 vessels and 5 net tons capacity or greater, and 80,814 boats were employed in the commercial fisheries of the United States and Alaska in 1950. During this year the catch of fishery products in all sections of the United States and Alaska totaled 4,884,909,000 pounds, valued at \$343,876,000 to the fishermen. This was an increase of 2 percent in quantity and 1 percent in value compared with the partially estimated produc-

tion of 1949. The average price of all fish to the fishermen decreased slightly from 1949 to 1950, although the values were generally variable and the prices of some species increased.

San Pedro, Calif., continued to be the Nation's leading fishing port, both in quantity and value with landings of approximately 940 million pounds, valued at \$43.5 million to the fishermen. Gloucester, Mass., was in second place, with approximately 196 million pounds, followed by San Diego, Calif., with approximately 190 pounds.

The per capita consumption of fishery products in the United States in 1950 totaled 11.5 pounds, edible weight. During the previous year the per capita consumption was 11.4 pounds. This was considerably above the wartime level of approximately 9 pounds when a large portion of the canned pack was allocated to the Armed Forces and to lend-lease distribution. The 1935-39 average was 11.1 pounds.

Fishery statistics of the United States and Alaska are compiled and published annually to make available information on both the economic and biological aspects of the domestic commercial fisheries.

Data on the economic aspects are necessary to persons engaged in the commercial fishery and to governmental agencies concerned with its regulation and protection. From the biological standpoint, these data are important to sound fishery management in providing detailed information on fluctuations in the commercial catch by species, locality and gear; and on the type of gear and craft operated. They assist conservation agencies in regulating the commercial fisheries so as to produce maximum yields without depletion.

The report for 1950 was prepared and published by the Service's Branch of Commercial Fisheries. The work was directed by A. W. Anderson, chief of the Branch, and C. El-dred Peterson, chief of the Branch's Statistical Section.

Fishery Statistics of the United States 1950 is available only by purchase from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at \$2.00 per copy. *

Seafood Products

(Continued from page 11)

iety of fish at any time of the year and at any place in the country. Proper freezing and curing techniques preserve most fish in good condition from the end of one season to the beginning of the next. Canned fish, of course, are of top quality for longer periods.

Prices and Grades

Fish, like most other food products, are available at prices which vary with the supply and the demand for the particular fishery product. The price of other fishery products, such as meat, cheese, poultry, and eggs, also exert an influence. As mentioned earlier, the Federal Government does not have any support or subsidy programs for fish. There is, therefore, no floor under fish prices.

In some instances prices to the fishermen are agreed upon annually and are in force for the ensuing year or until a new agreement is reached. This practice prevails more often on the Pacific Coast for such species as tuna, salmon, sardines, and mackerel. For other species and in other areas the prices usually are the result of daily offers by dealers or are reached by an auction on a fish exchange.

Fishery products, produced and processed to meet Federal standards comparable to those that exist for agricultural products, are not available.

Within the trade, however, there are trade standards in almost every fishing port and marketing center. Some are well accepted and rigidly adhered to. Others, unfortunately, have a tendency to vary with changes in the supply. *



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TIDES OF THE INDUSTRY

November Convention

Shrimp and fishing boats will be the major topics at the November fishery meeting at Miami Beach, Florida. The Gulf and Caribbean Fisheries Institute's 6th annual sessions will concentrate on shrimp, while fishing vessels will be covered by experts attending the simultaneous International Fishing Vessel Congress sponsored by the Food and Agriculture Organization of the United Nations.

All fishermen and members of industries allied to fishing are cordially invited to the meetings. They will be held at the Delano Hotel, Miami Beach, from November 16 to 20, 1953. Very special convention rates may be obtained by writing directly to the hotel or to C. P. Idyll, Executive Secretary, Gulf and Caribbean Fisheries Institute, Marine Laboratory, University of Miami, Coral Gables, Florida.

Next N.F.I. Convention

F. M. Bundy, President National Fisheries Institute, has announced that after a careful investigation, the conclusion has been reached that Cleveland offers the best facilities to meet the needs for N.F.I.'s Ninth Annual Convention, May 2-5, inclusive, 1954. The other leading contender was Miami Beach, Florida, but it had inadequate facilities to provide for anticipated increase of exhibits.

Anchoveta Tagging

The Inter-American Tropical Tuna Commission is marking anchovetas in a number of the baiting areas. Fish are tagged with a piece of colored plastic which is attached to the back with a thin stainless steel wire. When tagged fish are caught the tags should be visible in the bait wells.

Tagging is the only means of learning the migration or movement of the anchoveta. Your cooperation is requested in returning these tags. Please record the locality and date of capture. Tags may be given to the Inter-American Tropical Tuna Commission representative who meets your vessel in San Diego, San Pedro, or Puntarenas.

New Kind of Rope

Jewel-like ropes, trade named Wirelon, are now being manufactured in numerous colors by Rochester Ropes, Culpeper, Virginia. Wirelon is made by a process in which nylon is extruded solidly around a core of wire cable. The addition of dyes to the nylon produces lustrous, gem-like effects.

In addition to its striking looks, wirelon is said to have much longer life than uncoated cable; it is smooth and safe to handle, and withstands abrasion, kinking and corrosion. It is made in sizes ranging from 3/64 to 1 1/8-inch diameter.

New Diesel Fire Boat

The most powerful diesel-driven fire boat ever designed is being built for the City of New York at a total cost of approximately one and one-half million dollars.

The new 129-foot boat is to be powered with two Enterprise DMG-38 diesel engines, rated to 1000 BHP at 425 PRM. These turbocharged engines drive twin propellers raised in a modified tunnel stern which permits the fire boat to operate in the shallow bay waters, but still qualify as a sea-going vessel.

Separate pumping facility uses two additional Enterprise diesels (DSG-316) which supply 1000 BHP.

Another outstanding design feature is direct pilot-house control of the main propulsion engines. The Enterprise single-lever control permits direct control for ahead, astern and at any RPM.

Marine Power Booklet

"Dependable Fishing Power," an 8-page color booklet urging boat owners to spend time fishing—not fixing, shows Caterpillar-powered boats fishing in Mexican, Alaskan, Egyptian and American waters. Designed to inform fishermen in the 70 countries where Caterpillar has marine dealers, the booklet is available in Spanish, French, Portuguese and English. A copy may be obtained from Caterpillar Tractor Co., Peoria, Ill. or dealers.

Paint Stops Fire

A new fire retardant paint that is easily applied with brush or spray, actually stops fire from spreading. As tremendous loss of life and property might result from rapidly spreading flames in ships and in processing, canning and freezing plants, this product is said to aid fire safety and also give a more durable and longer lasting paint finish.

Trade named Fyr-Kote, this is one of the few oil paints to carry the Underwriters' label. The United States Navy is among those showing the keenest interest and offering the largest research program.

Always a terror to sea-faring men, fire at sea plus fast flying jets on air craft carriers required great research into fire protective coatings.

Fyr-Kote is an extremely washable flat wall paint, may be scrubbed with strong washing powder and boiling water. Easy to apply, economical, solid covering and long lasting. Write Fyr-Kote Co., Division of Morris Paint & Varnish Co., 27th & Douglas, Omaha 2, Nebraska.

Bid for Samoan Cannery

The Pacific Division of the Office of Territories says only one bid was submitted for the leasing of the fish cannery in American Samoa.

As required by the invitation, the bid was for an initial five-year lease. The sole bidder offered to lease the cannery for \$5,000 each year, or \$2.50 per short ton of fish processed, frozen, canned or stored for eventual shipment, whichever is greater.

The bidder stated his intention, in accordance with the draft contract, to train Samoans in fishing skills and to make available to the Samoans all the employment in the cannery to the extent they can be taught the necessary skills.

The lone bidder was the Van Camp Sea Food Co., Inc., of Terminal Island, Calif. If the bid is accepted, it will go into effect on January 1, 1954. The Department reserved the right to reject any and all bids.

organized this May for the special purpose of opposing the fishermen at the fillets hearing, voted at its recent board of directors meeting to branch out. It will remain in existence to oppose bills providing restrictions on the import of any and all kinds of fish during the coming session of Congress.

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FISH PRICE SUPPORTS.--Via reliable Government sources here, it is reported the British fishing industry will shortly be polled on a program to insure more stable prices for inshore fishermen--something like U.S. farm price supports.

The program would be put in effect only where the fishermen vote for it--like quotas on surplus wheat production in the United States. Other points in the program include promotion and regulation of imports.

Britishers, according to their plan, will recognize that imports are essential at times, but consider the regulation as desirable. No decision on the regulation of imports has been reached yet but it's on the way.

Also, British fishermen, under the new program, might turn up as increased competition in other waters. Under the proposed plan, a fisherman who is a prospective boat owner is eligible for a loan as well as a grant if he can provide as little as 15 per cent of the total cost of the vessel.

The British White Fish Authority hopes such arrangements will be a great step forward in the rebuilding of their fishing fleet.

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NATIONAL SALES TAX.--Political strategists at the White House now are advising the President against a proposal to impose a national sales tax as a means of helping to balance the government's budget.

The proposal, offered by President Sligh of the National Association of Manufacturers, would impose a levy "at the manufacturers level, on end products that would not be used for further manufacturing or processing." The NAM spokesman believes such a tax is the only way out of the government's accumulated spending mess.

What a national sales tax likely would mean to the fishing industry is that the manufacturers of boats, fishing equipment, processing equipment and so forth would get socked for the tax. They in turn would pass the tax on to the consumer, in this case the fisherman and his industry.

But the big argument fishing interests would have is that things such as boats and equipment are not a so-called "end product" in one sense, because they are used to further manufacturing (catching of fish) or processing. Lined up with fishing industry in this would be the powerful farm organizations and other industries which use manufactured equipment in order to produce or process still other "end products" such as fish and other foods.

It is highly unlikely that Congress would want to pass such a tax in the face of a crucial election coming up in 1954.

SNOOPERS?--The next stranger to walk into your plant or "up the plank" could be a Revenue agent. He will want to make friendly talk with you, maybe look over the place at some of the new things you might have installed, and perhaps take a squint at your latest income tax returns.

The agent is part of the new program sponsored by the Bureau of Internal Revenue to "catch up" with a lot of money that some people somehow "neglected" to report to the tax collector.

After the agent has had his look-see at your operation, he will hurry back to the office and check what he found out with the records. If things don't jibe, you can expect to hear from him again. Only this time, he'll be wearing a frown when he asks his personal questions.

Thing about it is you won't know when he's coming until he arrives. But actually it may be some time before a "revenooer" turns up, maybe more than a year, because of a shortage of agents. Eventually, they want to talk with almost "everybody."

Results so far, from the standpoint of the Treasury, are said to be "good." For each \$1 spent in the door-to-door, boat-to-boat campaign, the agents so far have turned up \$24.

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TUNA TARIFF RULING.--Tuna landed by Japanese boats in Guam or Samoa to be cooked and frozen there would be regarded for tariff purposes as products or manufactures of those islands, regardless of their subsequent use in the U.S.

The Bureau of Customs gave this opinion in a letter to the director of Fish and Wildlife Service in response to inquiries on the Tariff status of such fishery products shipped from the Islands to the United States.

In addition, the opinion was given that such tuna landed by Japanese vessels in Guam or Samoa for cooking and freezing in unsealed cans would also be regarded as manufacturers of these islands, even though oil is to be added to the tuna and the cans sealed in the U.S.

However, the opinion adds that, "the labeling in Guam or Samoa of tuna which has been COMPLETELY processed and canned in a foreign country would NOT make such tuna a product of such island."

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ICELAND REDUCING FISHING.--Iceland will be less of a factor in the fishing picture in the near future if current farm plans of that country continue forward as scheduled.

Iceland just received two more loans from the Internal Bank for reconstruction and development totaling \$1.2 million for the current phase of its program begun in 1951 to increase agricultural production.

Iceland wants to restore agriculture to its former place of importance and lessen its dependence on the fishing industry. The time may not be too distant when we'll be exporting fish to Iceland.

Research Cruise Results

THE research ship *John R. Manning* of the U. S. Fish and Wildlife Service docked at Nawiliwili, Kauai, on Monday, August 31, completing a 6-week tuna longline fishing cruise along the 155th and 160th meridians in the equatorial region south of Hawaii. Remarkably good fishing for the desirable yellowfin tuna was found between 2 and 4 degrees north of the equator on 155 degrees west longitude, and in the vicinity of Christmas Island.

According to O. E. Sette, Director of the Pacific Oceanic Fishery Investigations, over 200 yellowfin, totaling approximately 10,000 pounds, were caught by the small amount of experimental fishing gear in only 5 days of fishing which is good evidence of the existence of an unexploited and potentially highly valuable commercial fishing resource lying within ready reach of the Hawaiian Islands. A number of albacore were also taken, and these fish, which are the highest-priced of the tunas, would undoubtedly be a profitable secondary product of a yellowfin fishery in those waters.

The captain of the *Manning*, Robert Lee of Honolulu, reported that several promising innovations in tuna longline gear were tested during the cruise with the object of developing a type of line more efficient than that used at present by Hawaiian and Japanese fishermen.

These experiments included the substitution of hemp for the usual, more expensive, cotton line, variations in the spacing of the hooks along the main line, and a new method of attaching the branch lines to the main line, designed to reduce tangling.

It was found that tangling, ordinarily a time-consuming and troublesome feature of longline fishing, can be virtually eliminated, and it is thought that adoption of the new method will enable fishermen to operate more gear and catch more tuna. The results of the hook spacing experiments indicate that the most efficient arrangement is approximately 10 hooks to each 1,000 feet of main line.

Scientific findings of the expedition included the capture of a variety of mackerel shark hitherto known

only from the Atlantic, and the discovery of evidence that yellowfin tuna were actively spawning in the area where the best fishing was found. The scientists collected samples of scales and vertebrae from over 400 tuna, and will attempt to read the annual rings in these specimens in order to gain information on the age and growth rate of the fish.

Several days were spent at Christmas Island exploring possible sites for the installation of devices to automatically record seasonal changes in the temperature of the ocean around the island, which lies in the heart of the rich equatorial fishing grounds. The results of this reconnaissance will be used in planning the possible future establishment of a small field station on Christmas Island.

The *Manning's* seven tons of yellowfin and albacore were delivered to the Nawiliwili Canning Company's plant on Kauai for processing. Scientists from the Pacific Oceanic Fishery Investigations will keep a constant check on these fish as they pass through the cannery in order to evaluate their quality in comparison with tuna from Hawaii and west coast fishing grounds. *

Goodbye, Whale

The famous "Mrs. Haroy," an embalmed 70-ton fin whale, which arrived recently in the United States for an extended tour, will not be exhibited as planned. The Danish owner was not successful in making the necessary exhibit arrangements across the country and decided to return to Denmark with the whale. Loaded on a specially built railroad flatcar, the whale was waiting at Weehawken, N. J., to start her tour.

Half a Million Dollars to Spend!

To the Editor:

The participation by Canada, Iceland, Norway and possibly other countries in a joint advertising program to promote the sale of fish fillets in the United States could conceivably produce up to \$500,000 annually. This is quite a sum of money for an industry so newly initiated to advertising budgets.

As the program unfolds the officers of the National Fisheries Institute will undoubtedly consider creating a Committee on Advertising to whom the execution of the plan shall be entrusted. For how wisely this money is spent, may well determine the success of this international venture and its chances for continuity.

Even this half-a-million dollar target, under today's highly competitive conditions, may not provide an adequate budget for the job to be done. This points up the need for careful management of the fund . . . and the ideas and information of the entire fishing industry should be put to the best possible use in this situation.

Here's hoping the advertising agency and all those connected with this campaign, will avail themselves of everything the fishing industry has to offer in the field of product research, market research and consumer research. The results should be of tremendous value in developing a sales theme for the program—a program which must not fail in its objective.

Yours truly,
Howard W. Seibert,
Sales and Market Research,
Chicago, Ill.



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The GLOBE

An International News
File Compiled from
FOREIGN REPORTS

Argentina.—The import of Japanese fishing boats and fish-processing facilities are reportedly being considered by an Argentine firm in negotiations with Japanese interests.

Prior to World War II, a Japanese firm established a branch company in Buenos Aires. Two Japanese crews operated under the Argentine flag from 1936 to 1949.

Canada.—The Fishermen's Indemnity Fund set up by the Canadian government to enable fishermen to obtain protection against loss or serious damage to their vessels for a yearly premium of one per cent has gone into effect. The plan represents a long-term solution to the problem of compensation when losses occur and it permits a fisherman to retain his independence when misfortune strikes. A specially trained group of department of fisheries officers will carry out necessary appraisals of vessels and assume other duties associated with the plan.

Chile.—In order to stimulate the Chilean fishing industry, various tax exemptions and other government aids were granted the Chilean fisheries by government decree. It exempts the fishing industry for a period of ten years from certain taxes.

Other provisions of the decree include government aid in establishment of schools and housing for fishermen, measures to prevent pollution of waters, and more liberal regulations on the exploitation of shellfish beds.

Hawaii.—A 2,500 mile, 69 station hydrographic cruise, part of the Pacific Oceanic Fishery Investigations' program to study conditions governing the local skipjack fishery, was completed by the FWS research vessel "Hugh M. Smith." Oceanographic and Biological investigations carried on in an area of 86,000 square miles surrounding the Hawaiian Islands, collected data which will help to determine seasonal changes in local waters and aid in explaining fluctuations in the local skipjack catch.

Iceland.—The International Bank for Reconstruction and Development recently made loans to Iceland in European currencies, to help restore agriculture to its former place of importance and lessen Iceland's dependence on the fishing industry. The program aims to increase agricultural production 50 per cent by 1965, and improve Iceland's foreign exchange position considerably through import savings and export earnings.

Japan.—The proposed bills which would favor the export of canned over frozen tuna did not make any headway in the session of the Diet which adjourned August 10. Consideration of legislation to encourage the exportation of marine products including tuna may be discussed at the next ordinary session of the

Diet scheduled to begin in December, reports U.S. Embassy Dispatch from Tokyo.

Mexico.—The Shrimp Association of the Americas is being praised for seeking to obtain the cooperation of U. S. shrimp vessels not to fish within nine miles of the Mexican coast. Many speculated that this decision may be followed by formal recognition of Mexico's claim to nine miles of territorial waters.

In exchange for this, U. S. shrimp fishermen have asked that Mexico establish two refuge zones near Tampico and Campeche where fishermen might seek shelter from storms without exposing themselves to detention by Mexican gunboats.

Vessels found in Mexican territorial waters do not infringe Mexican fishing laws unless they are found with nets in the water.

Norway.—The new type sonar, known as ASDIG, especially developed for locating fish schools, is being placed in production in Norway. The device can also be used as a depth finder, takes little space, is easy to service, can be mounted on a vessel as short as 80 feet, and has located herring schools at a distance of 1 to 1¼ miles. Volume production should lower the price and might lead to widespread use in the fishing fleets.

Greenland.—The Cod Fishery has succeeded Sealing as the most important industry in Greenland with a total of 150 fishery stations now in that country.

This development has been attributed to the increasing warmth in the Arctic climate. Possible causes of this are changes in solar radiation, continued melting of the last five of the Ice Age camps, and changes in open currents caused by the varying relative positions of sun, moon, and earth.

Greenland.—The largest individual shrimp (prawn) beds in the world have been discovered over the last five years in Disko Bay, Greenland. Disko Bay is well within the Arctic circle; each of the grounds is 10 miles long and 5 miles wide.

Norway.—An automatic baiting machine for line fishermen was tested by a Norwegian fishing vessel. The device worked very well with fresh bait, even in rough weather. There was no waste of bait and no apparent difference in the catch of hand-baited and automatically-baited hooks. It saved much time and labor, and with a few improvements should be well accepted, say the reports.

South Australia.—A 9½-pound albacore, caught by the Commonwealth Scientific and Industrial Research Organization vessel Derwent Hunter about 50 miles south of Cape Wiles, is believed to be the first of his species ever recorded there. The albacore was taken on a trolling line while the vessel was in South Australian waters on school-shark research.

Sardine Labor Dispute

A three-way dispute between boat-owners, cannerymen and unions had tied up 120 Los Angeles Harbor sardine fishing boats at our press time.

The boats, scheduled to start the 1953-54 sardine season at 12:01 a.m. October 1, were held in port as owners negotiated prices on fish and unions negotiated with boatowners for the establishment of a welfare fund and health insurance program.

Owners were asking \$100 per ton for sardines which are reported scarce, which price cannerymen agreed to pay. Owners also asked \$80 per ton for jack mackerel. Cannerymen have offered \$75. Owners also asked \$100 per ton for Pacific mackerel, with cannerymen offering \$85. Owners asked \$45 per ton for anchovies while cannerymen were willing to pay \$35.

How Long Dead?

An electrical device that indicates how long a fish has been dead may be used this year by fishery management men to enforce closed seasons. Fishermen who bring in catches shortly after the end of a closure will submit their fish to a shock test which will show how recently they were caught.

The device, a portable electric shocker consisting in part of a "hot-

shot" battery and a Ford cell is based on the theory that a fish's nerve tissue will react to electric current for a determinable time after death. Because some parts of the fish body become unresponsive to electric current sooner than others, the amount and kind of reaction caused by the shocker indicates how long the fish has been dead.

Exploratory Fishing

Large tuna were encountered by the FWS exploratory vessel *Oregon* in the north central Gulf during the last week of August. Considerable gear was lost in the initial contact with the school as the size of the fish was greater than had been expected. During the next week, several more fast moving schools were found, and small catches of blackfin tuna, from 2 to 15 pounds were made.

Difficulty was experienced in stopping the schools, and the flurries on the live bait were usually short lived. Birds were working over all the schools seen except one, and scattered tuna were seen jumping on several occasions. To date, the large schools seen during the last two years have not been found.

Consistently good catches of tuna bait are being made using the new type trap lift net developed by Ore-

gon personnel. The bait is taken at night with the use of lights, and full loads of 4-inch anchovies have been taken in a few hours fishing off the Mississippi and Louisiana coasts.

Trawler Added to Research Fleet

The 50-foot commercial fishing trawler *Nautilus* was recently added to the Marine Research Fleet of the California Department of Fish and Game.

The *Nautilus* replaces the 35-foot *Broadbill*, which sank at its moorings in Sausalito Harbor during a storm last winter. It will be used by the Marine biologists as a mothership in abalone-diving research off the North Coast, in trawl investigations, and salmon and crab research out of San Francisco.

The State's new vessel carries two-way short-wave radio, loran, automatic pilot, and recording echosounder. It is equipped with two drag winches and 450 fathoms of cable.

Formerly named the *Sportfisher II*, the seven year old *Nautilus* is a northern dragger, with a 14-foot beam, 8-foot draft, and 37-ton displacement.

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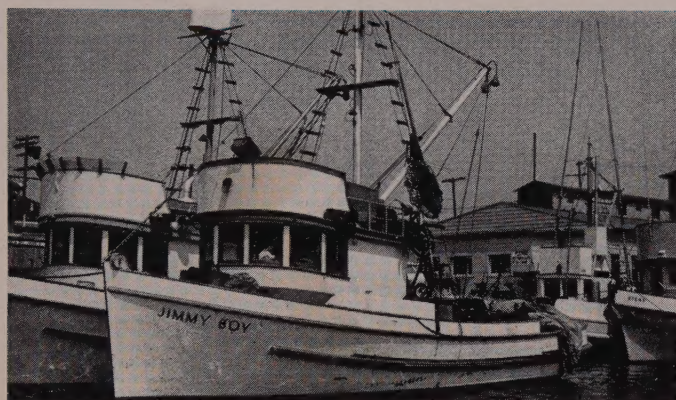
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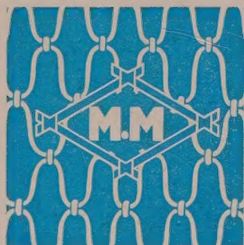
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